PALM Intranet

Application Number [ ] SEARCH

IDS Flag Clearance for Application 09240250

IDS Information

Content	Mailroom Date	Entry Number	IDS Review	Reviewer
M844	03-18-1999	5	☑	06-16-2001 21:31:58 EXPO-CONV
M844	10-29-1999	7	☑	06-16-2001 21:31:58 EXPO-CONV
M844	03-15-2001	9	☑	06-16-2001 21:31:59 EXPO-CONV

UPDATE

Refine Search

Search Results -

Terms	Documents
L2 and (((activat$ or execut$) adj2 link$) with (email$ or mail$ or "e-mail"))	12

Database:
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search: L8

Refine Search | Recall Text | Clear | Interrupt

Search History

DATE: Monday, October 03, 2005 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=PGPB,USPT; THES=ASSIGNEE; PLUR=YES; OP=OR			
L8	L2 and (((activat$ or execut$) adj2 link$) with (email$ or mail$ or "e-mail"))	12	L8
L7	L2 and ((activat$ or execut$) adj2 link$)	72	L7
L6	L2 and ((activat$ or execut$) 2w link$)	1790	L6
L5	L2 and ((activat$ or execut$) (w2) link$)	1790	L5
L4	L2 and ((activat$ or execut$) (2w) link$)	1790	L4
L3	L2 and ((activat$ or execut$) near3 link$)	144	L3
L2	L1 and ((html or link$) with (email$ or mail$ or "e-mail"))	1806	L2
L1	((html or link$) same (email$ or mail$ or "e-mail")) and @ad<=19990129	3783	L1

END OF SEARCH HISTORY

Hit List

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Search Results - Record(s) 1 through 10 of 12 returned.

☐ 1. Document ID: US 6690417 B1

Using default format because multiple data bases are involved.

L8: Entry 1 of 12 File: USPT Feb 10, 2004

US-PAT-NO: 6690417
DOCUMENT-IDENTIFIER: US 6690417 B1
**** See image for Certificate of Correction ****

TITLE: Image processing method, an image processing apparatus, an image input device, a photographing device, a photographing system, a communication device, a communication system, and a storage medium

DATE-ISSUED: February 10, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Yoshida; Shigeo	Yokohama			JP
Sonobe; Hiraku	Yokohama			JP
Ono; Satoshi	Yamoto			JP
Ohara; Keiji	Yokohama			JP
Matsumoto; Shinichi	Yokohama			JP
Seki; Takayuki	Tokyo			JP

US-CL-CURRENT: 348/231.1; 348/222.1, 455/556.1, 455/557, 711/170

Full | Title | Citation | Front | Review | Classification | Date | Reference | ... | Claims | KWIC | Draw D...

☐ 2. Document ID: US 6496744 B1

L8: Entry 2 of 12 File: USPT Dec 17, 2002

US-PAT-NO: 6496744
DOCUMENT-IDENTIFIER: US 6496744 B1

TITLE: Method and system for custom manufacture and delivery of a data product

Full | Title | Citation | Front | Review | Classification | Date | Reference | ... | Claims | KWIC | Draw D...

☐ 3. Document ID: US 6285991 B1

L8: Entry 3 of 12 File: USPT Sep 4, 2001

US-PAT-NO: 6285991
DOCUMENT-IDENTIFIER: US 6285991 B1
**** See image for Certificate of Correction ****

TITLE: Secure interactive electronic account statement delivery system

☐ 4. Document ID: US 6223213 B1

L8: Entry 4 of 12 File: USPT Apr 24, 2001

US-PAT-NO: 6223213
DOCUMENT-IDENTIFIER: US 6223213 B1

TITLE: Browser-based email system with user interface for audio/video capture

☐ 5. Document ID: US 6195564 B1

L8: Entry 5 of 12 File: USPT Feb 27, 2001

US-PAT-NO: 6195564
DOCUMENT-IDENTIFIER: US 6195564 B1

TITLE: Method for automatically establishing a wireless link between a wireless modem and a communication device

☐ 6. Document ID: US 6101485 A

L8: Entry 6 of 12 File: USPT Aug 8, 2000

US-PAT-NO: 6101485
DOCUMENT-IDENTIFIER: US 6101485 A

TITLE: Electronic solicitations for internet commerce

☐ 7. Document ID: US 6088702 A

L8: Entry 7 of 12 File: USPT Jul 11, 2000

US-PAT-NO: 6088702

DOCUMENT-IDENTIFIER: US 6088702 A

TITLE: Group publishing system

☐ 8. Document ID: US 5860068 A

L8: Entry 8 of 12 File: USPT Jan 12, 1999

US-PAT-NO: 5860068
DOCUMENT-IDENTIFIER: US 5860068 A

TITLE: Method and system for custom manufacture and delivery of a data product

☐ 9. Document ID: US 5832065 A

L8: Entry 9 of 12 File: USPT Nov 3, 1998

US-PAT-NO: 5832065
DOCUMENT-IDENTIFIER: US 5832065 A

TITLE: Synchronous voice/data message system

☐ 10. Document ID: US 5751960 A

L8: Entry 10 of 12 File: USPT May 12, 1998

US-PAT-NO: 5751960
DOCUMENT-IDENTIFIER: US 5751960 A
**** See image for Certificate of Correction ****

TITLE: Electronic mail system using double forwarding suppressing function for administrating electronic message that having data format that can not be handled at destination side

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Terms	Documents
L2 and (((activat$ or execut$) adj2 link$) with (email$ or mail$ or "e-mail"))	12

Hit List

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Search Results - Record(s) 11 through 12 of 12 returned.

☐ 11. Document ID: US 4940887 A

Using default format because multiple data bases are involved.

L8: Entry 11 of 12 File: USPT Jul 10, 1990

US-PAT-NO: 4940887
DOCUMENT-IDENTIFIER: US 4940887 A
** See image for Certificate of Correction **

TITLE: Automatic mail handling and postage vending machine

DATE-ISSUED: July 10, 1990

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sheng-Jung; Wu	Taipei			

US-CL-CURRENT: 235/381; 177/25.15, 235/375, 235/376, 235/377, 235/383, 235/432, 700/224, 705/406, 705/407, 705/408

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw D

☐ 12. Document ID: US 3960317 A

L8: Entry 12 of 12 File: USPT Jun 1, 1976

US-PAT-NO: 3960317
DOCUMENT-IDENTIFIER: US 3960317 A

TITLE: Mail box with signal attachment

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw D

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Terms	Documents
L2 and (((activat$ or execut$) adj2 link$) with (email$ or mail$ or "e-mail"))	12

Display Format: - Change Format

Previous Page Next Page Go to Doc#

L8: Entry 2 of 12 File: USPT Dec 17, 2002

US-PAT-NO: 6496744
DOCUMENT-IDENTIFIER: US 6496744 B1

TITLE: Method and system for custom manufacture and delivery of a data product

DATE-ISSUED: December 17, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cook; David Philip	Dallas	TX	75230	

APPL-NO: 09/ 228458 [PALM]
DATE FILED: January 11, 1999

INT-CL: [07] G06 F 19/00

US-CL-ISSUED: 700/95; 700/48, 705/26
US-CL-CURRENT: 700/95; 700/48, 705/26

FIELD-OF-SEARCH: 700/95-103, 700/48, 705/26-30, 705/16, 705/17, 705/18, 705/51-52, 705/64, 705/75-77, 395/200.42, 395/200.36, 395/200.47, 395/200.59, 395/200.32, 395/200.33, 707/104, 707/3, 707/6

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL Clear

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	5721903	February 1998	Anand et al.	707/5
☐	5860068	January 1999	Cook	705/26
☐	5918213	June 1999	Bernard et al.	705/26
☐	5923552	July 1999	Brown et al.	364/468.06
☐	5968110	October 1999	Westrope et al.	703/27
☐	5970471	October 1999	Hill	705/26
☐	5974004	October 1999	Dockes et al.	369/30
☐	6023683	February 2000	Johnson et al.	705/26
☐	6032130	February 2000	Alloul et al.	705/27

ART-UNIT: 2125

PRIMARY-EXAMINER: Picard; Leo

ASSISTANT-EXAMINER: Bahta; Kidest

ATTY-AGENT-FIRM: Hughes & Luce LLP

ABSTRACT:

A system for selling, manufacturing and distributing a custom digital data product from retail stores, over the Internet, over the telephone, or by electronic means (e.g., fax, e-mail, and the like) wherein a customer is provided (e.g., by electronic mail verification) order tracking information. After a customer selects a "set" of sound recordings or data from a library or catalog of such recordings or data and payment or credit is received or verified, an image of the "set" is assembled from a storage or "disk" farm. The image is preferably assembled at a manufacturing facility, e.g., a CD-ROM burner farm, where the product is then made. Every data object on the product may have a code associated therewith for later reference. The disk and burner farms communicate via a high speed communications subsystem to facilitate continuous processing. Upon assembly and manufacture, the product is packaged and shipped. Throughout the manufacture and distribution, the customer may track the process by activating a hyperlink in one or more e-mail confirmation messages provided by the service provider, or by entering order/tracking numbers from retail terminals or by telephone, or the like.

32 Claims, 2 Drawing figures

Previous Doc Next Doc Go to Doc#

DOCUMENT-IDENTIFIER: US 6496744 B1
TITLE: Method and system for custom manufacture and delivery of a data product

Application Filing Date (1):
19990111

Detailed Description Text (8):
Each of the machines (possibly including the network computers located at the retail establishments) that interface to or form part of the system preferably include a "suite" or collection of known Internet tools to access other computers of the network and thus to obtain certain services. These services may include one-to-one messaging (e-mail), one-to-many messaging (bulletin board), on-line chat, file transfer and browsing. Various known Internet protocols are used for these services. Thus, for example, browsing is effected using the Hypertext Transfer Protocol (HTTP) or such other protocols hereinafter developed or adopted, which provides users access to multimedia files using Hypertext Markup Language (HTML) or any other hereinafter developed or adopted markup, scripting or alternative language or technique. The collection of servers that use HTTP comprise the World Wide Web, which is currently the Internet's multimedia information retrieval system. Digital files are normally transferred over the Internet using the File Transfer Protocol (FTP) in a known manner.

Detailed Description Text (25):
In particular, after credit or payment is verified, the management subsystem (or the Internet server) preferably notifies the customer of an order "confirmation" number. Although not required, this notification may be in the form of an e-mail message that includes a hyperlink (with the order number comprising part of the link). When the user selects the hyperlink, the user's Web browser is launched to a tracking page (which is usually a page at the Internet server 15) that provides order status updates to the customer. The user may alternatively navigate to the tracking page and enter a tracking number to obtain the given manufacturing status updates.

Detailed Description Text (27):
Shipping management subsystem 19 also preferably generates a second e-mail message or otherwise provides information to the customer that his or her custom CD-ROM has been shipped. Thus, for example, the second e-mail may include a hyperlink with an embedded shipping tracking number such that when the customer activates the link, he or she may access a tracking system (e.g., a third party site such as the UPS.RTM. or Federal Express.RTM. Web site) so that the particular movements of the product can be readily determined.

L8: Entry 3 of 12 File: USPT Sep 4, 2001

US-PAT-NO: 6285991
DOCUMENT-IDENTIFIER: US 6285991 B1
**** See image for Certificate of Correction ****

TITLE: Secure interactive electronic account statement delivery system

DATE-ISSUED: September 4, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Powar; William L.	Palo Alto	CA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Visa International Service Association	Foster City	CA			02

APPL-NO: 08/ 766498 [PALM]
DATE FILED: December 13, 1996

INT-CL: [07] H04 L 9/32, G06 F 17/60

US-CL-ISSUED: 705/76; 705/78, 705/40, 713/156, 713/175
US-CL-CURRENT: 705/76; 705/40, 705/78, 713/156, 713/175

FIELD-OF-SEARCH: 380/23, 380/24, 380/30, 380/49, 380/277, 705/40, 705/26, 705/14, 705/76, 705/77, 705/34, 713/105-159

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL Clear

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	5007084	April 1991	Materna et al.	380/24
☐	5193055	March 1993	Brown et al.	
☐	5214702	May 1993	Fischer	380/30
☐	5337360	August 1994	Fischer	
☐	5383113	January 1995	Kight et al.	705/40
☐	5465206	November 1995	Hilt et al.	705/40
☐	5557518	September 1996	Rosen	

☐	5699528	December 1997	Hogan	395/240
☐	5748738	May 1998	Bisbee et al.	380/25
☐	5794210	August 1998	Goldhaber et al.	705/14
☐	5832460	November 1998	Bednar et al.	705/27
☐	5848397	December 1998	Marsh et al.	705/14
☐	5848400	December 1998	Chang	705/35
☐	5867578	February 1999	Brickell et al.	380/23

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
328232	August 1989	EP	

OTHER PUBLICATIONS

Bellare et al, "iKP--A Family of Secure Electronic Payment Protocols", First USENIX Workshop on Electronic Commerce, USENIX Association, Jul. 11-12, 1995, paper dated Aug. 2, 1995; pp. 89-106, see pp. 94 and 96.
Written Opinion of IPEA/US, WIPO dated Mar. 2, 1999.
Kolletzki S: "Secure Internet banking with Privacy Enhanced Mail--A Protocol for reliable exchang eof secured order forms", Computer Networks and ISDN Systems, vol. 14, No. 28, Nov. 1996, p. 1891-1899 XP004014500.
Sirbu M et al.: "Netbill: An Internet Commerce System Optimized for Network Delivered Services", Digest of Papers of the Computer Society Computer Conference (Spring) Compcon, Technologies for the Information Superhighway, San Francisco, Mar. 5-9, 1995, No. Conf. 40, Mar. 5, 1995, Institute of Electrical and Electronics Engineers, pp. 20-25, XP000577034, see figure 3.
"Apply Your Marketing Talent to Promote On-Line Banking", Bank Marketing, May 1, 1996, pp. 25-30, XP000579413, see p. 28.
Secure Electronic Transaction (SET) Specification; Jun. 1996 Draft; Book 1: Business Description.
Secure Electronic Transaction (SET) Specification; Jun. 1996 Draft: Book 2: Programmer's Guide; Book 3: Formal Protocol Specification.
Landis, Ken; The Perfect Passports to Global Electronic Banking; The Automated Banker; Oct. 1990 pp. 47-49.
Medvinsky, Gennady and Neuman, B. Clifford; NetCash: A design for practical electronic currency on the Internet; Association For Computing Machinery; 1993 pp. 1-5.
Perry, Tekla S.; Electronic Banking goes to market; IEEE Spectrum; Feb. 1988 pp. 46-49.

ART-UNIT: 212

PRIMARY-EXAMINER: Barron, Jr.; Gilberto

ATTY-AGENT-FIRM: Beyer Weaver & Thomas, LLP

ABSTRACT:

The present invention consists of a secure interactive electronic account statement delivery system suitable for use over open networks such as the Internet. The invention utilizes a certification hierarchy to insure that electronic bills,

invoices, and other account statements can be securely sent over open networks. The participants in the system are a certification authority, certificated banks, billers, and customers. The certification authority grants digital certificates to the certificated banks, which in turn grant digital certificates to billers and customers. Digital certificates form the basis for encryption and authentication of network communications, using public and private keys. The certificates associate a customer and biller with a certificated bank and with the electronic billing system, much like payment cards associate a customer with a payment card issuer and a particular payment card system. Digital signatures are used for authentication and non-repudiation. The certificates may be stored as digital data on storage media of a customer's or biller's computer system, or may be contained in integrated circuit or chip cards physically issued to billers and customers. The electronic bill itself may be a simple text message containing the equivalent of summary information for the bill, or may be more elaborate. In one embodiment of the invention, the electronic bill contains a number of embedded links, for example an embedded URL of a biller's world wide web server that allows the customer to interactively bring up detailed billing information by activating the link. The e-mail message may also include links to third party websites.

69 Claims, 15 Drawing figures

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L8: Entry 3 of 12 File: USPT Sep 4, 2001

DOCUMENT-IDENTIFIER: US 6285991 B1
** See image for Certificate of Correction **
TITLE: Secure interactive electronic account statement delivery system

Abstract Text (1):
The present invention consists of a secure interactive electronic account statement delivery system suitable for use over open networks such as the Internet. The invention utilizes a certification hierarchy to insure that electronic bills, invoices, and other account statements can be securely sent over open networks. The participants in the system are a certification authority, certificated banks, billers, and customers. The certification authority grants digital certificates to the certificated banks, which in turn grant digital certificates to billers and customers. Digital certificates form the basis for encryption and authentication of network communications, using public and private keys. The certificates associate a customer and biller with a certificated bank and with the electronic billing system, much like payment cards associate a customer with a payment card issuer and a particular payment card system. Digital signatures are used for authentication and non-repudiation. The certificates may be stored as digital data on storage media of a customer's or biller's computer system, or may be contained in integrated circuit or chip cards physically issued to billers and customers. The electronic bill itself may be a simple text message containing the equivalent of summary information for the bill, or may be more elaborate. In one embodiment of the invention, the electronic bill contains a number of embedded links, for example an embedded URL of a biller's world wide web server that allows the customer to interactively bring up detailed billing information by activating the link. The e-mail message may also include links to third party websites.

Application Filing Date (1):
19961213

Brief Summary Text (29):
The e-mail message itself may be a simple-text message containing the equivalent of summary information for the bill, or may be a more elaborate bill containing detailed text and graphics. However, the bill delivery system of the present invention allows the creation of much more elaborate bills. In one embodiment of the invention, the e-mail message contains a number of embedded links, for example an embedded URL of a biller's world wide web server that allows the customer to interactively bring up detailed billing information at a touch of an on-screen button that activates the link. The e-mail message may also include links to third party web sites offering special product promotions or other services, thereby performing the same function, but with greater flexibility as that performed by marketing materials included in mailed hard-copy bills. The e-mail message may also contain an embedded command to send the biller a confirmation message when the customer first displays the biller's message. Customer certificates and customer digital signatures are used to insure authenticity of communications originated by a customer.

Detailed Description Text (28):
In one embodiment, the body of the e-mail message contains the summary bill data, as well as links for accessing detailed billing data, for obtaining advertising

materials, and for initiating electronic payment of the bill. The biller appends the biller's digital certificate, digitally signs the body of the e-mail message, and encrypts the entire e-mail message, including the digital signature, using the customer's public key (or using a session key encrypted with the customer's public key). The biller then sends the encrypted message (and encrypted session key, if applicable) to the customer.

Detailed Description Text (34):
If the customer activates the bill detail option at block 809, the customer's software sends a request to the biller for detailed information. The link to the detailed bill information contained in the e-mail message contains the appropriate network address to which the request should be transmitted. The request contains a unique bill identification number obtained from the summary bill. The customer's software may append the customer's digital certificate to the body of the message. The customer's software digitally signs the message, optionally encrypts the message, if additional security is needed, using the biller's public key (or a session key generated by the customer's software and encrypted with the biller's public key), and transmits the message to the address for the appropriate biller detail server specified in the link at block 810.

Detailed Description Text (49):
In one embodiment of the invention, a certificate issued by a certificated bank to a customer may be used by the customer to make electronic payments as well as to receive electronic statements, and a certificate issued by a certificated bank to a biller may be used by the biller to receive electronic payments as well as to present bills electronically. In one embodiment, a customer or biller applying for a certificate from a certificated bank may request that an electronic payment account be established that is linked to the certificate. In one embodiment, such an account functions much like a credit card account or a checking account with debit card access. The customer sends a biller an authorization to receive payment from the customer's payment account, the biller conveys the authorization to the customer's certificated bank, and the customer's certificated bank electronically transmits the authorized amount to the biller's certificated bank for payment into the biller's electronic payment account In another embodiment, the customer may use the customer's certificate to make electronic payments using an existing payment card. In one embodiment, the customer sends a payment authorization to the biller in which the customer specifies the amount being paid and the credit card (or other payment card) account number to be charged. The customer's software digitally signs the payment authorization by encrypting a message digest of the payment authorization with the customer's private key. The customer's software appends the customer's certificate to the digitally signed payment authorization and encrypts the customer's payment authorization, digital signature, and certificate using a session key. The customer's software encrypts the session key using the biller's public key, appends the encrypted session key to the rest of the message, and sends the resulting message via e-mail to the biller. The biller decrypts the session key using the biller's private key and uses the session key to decrypt the customer's certificate, digital signature and payment authorization. The biller verifies the authenticity of the customer's certificate, and verifies that the message digest obtained by decrypting the customer's digital signature using the customer's public key matches a message digest of the customer's payment authorization. The biller subnits the payment authorization to the appropriate payment card authority, and the biller's account is credited with the payment amount In one embodiment, the biller retains a copy of the customer's payment authorization and digital signature for accountability and to prevent repudiation of the payment authorization by the customer.

L8: Entry 4 of 12 File: USPT Apr 24, 2001

US-PAT-NO: 6223213
DOCUMENT-IDENTIFIER: US 6223213 B1

TITLE: Browser-based email system with user interface for audio/video capture

DATE-ISSUED: April 24, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cleron; Michael A.	Menlo Park	CA		
Lovstrand; Lennart	Palo Alto	CA		
Yaksick; Jeffrey D.	Sunnyvale	CA		
Callahan; Sean M.	St. Paul	MN		
Krueger; Mark H.	Fukuoka			JP

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
WebTV Networks, Inc.	Mountain View	CA			02

APPL-NO: 09/ 126614 [PALM]
DATE FILED: July 31, 1998

INT-CL: [07] G06 F 13/00

US-CL-ISSUED: 709/206; 709/219, 709/328
US-CL-CURRENT: 709/206; 709/219, 719/328

FIELD-OF-SEARCH: 709/204, 709/206, 709/217, 709/219, 709/313, 709/317, 709/328, 709/329, 707/501

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL Clear

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	5557320	September 1996	Krebs	348/12
☐	5781901	July 1998	Kuzma	707/10
☐	5937160	August 1999	Davis et al.	707/10
☐	5974449	October 1999	Chang et al.	709/206
☐	6014689	January 2000	Budge et al.	709/206

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
WO 97/27534	July 1997	WO	

OTHER PUBLICATIONS

Foo, S. et al, System Architectural Design for Delivering Video Mail over the World-Wide-Web, Division of Software Systems, Nanyang Technological University, 1997, J. of Comput. Sci. & Technol., vol. 12, pp. 372-385.
Handley, M. et al, The World-Wide Web: How Servers Work, The Interoperability Report, 1995, Connexions, pp. 12-24.

ART-UNIT: 214

PRIMARY-EXAMINER: Vu; Viet D.

ATTY-AGENT-FIRM: Lee & Hayes, PLLC

ABSTRACT:

A browser-based email system has a thin client connected to a host mail server. The thin client implements a browser. The host mail server provides pages to the thin client, which can be rendered by the browser to present an email service to a user. The thin client is equipped to receive audio and video data and supports a user interface to facilitate capture of the audio or video data for inclusion in an email message. After a data stream is captured and stored locally at the client, the browser submits a request to the host mail server that contains a token in lieu of the data stream. The host mail server returns a response specifying a new page that contains the email message. The response also includes the token and indicates a location in the new page at which the audio or video data is to be rendered. Upon receiving the response, the browser inserts the data stream into the new page at the location and renders the new page. After the user has reviewed the email message, the user can send the email message, causing the browser to submit another request to the host mail server that contains both the email message and the audio or video data. Upon receiving this second request, the host mail server converts the email message and the audio or video data to a MIME message and forwards the MIME message to the intended recipient.

16 Claims, 10 Drawing figures

Previous Doc Next Doc Go to Doc#

L8: Entry 4 of 12 File: USPT Apr 24, 2001

DOCUMENT-IDENTIFIER: US 6223213 B1
TITLE: Browser-based email system with user interface for audio/video capture

Application Filing Date (1):
19980731

Brief Summary Text (8):
Browser-based email systems are well suited for thin clients. The client mailbox is maintained at a server and the client accesses the mailbox using standard Web protocol, such as HTTP (hypertext transport protocol). The server serves images of the mailbox and opened mail messages as standard pages written in a markup language, such as HTML (hypertext markup language). The client browser renders the pages so that the user perceives a full functioning email system.

Brief Summary Text (14):
After the user has reviewed the email message, the user can click a "Send" link on the rendered email page to send the email message to an intended recipient. Upon activation of the "Send" link, the browser submits another request to the host mail server that contains both the email message and the audio or video data. Upon receiving this second request, the host mail server converts the email message and the audio or video data to a MIME message (Multipurpose Internet Mail Extensions) and forwards the MIME message to the intended recipient, where it can be rendered in full.

Detailed Description Text (7):
The client 22 implements a hyperlink browser 30 to browse the Web and to use the email system. The Web browser 30 presents a user interface (UI) 32 that includes a screen space to display rendered pages written in a markup language, such as HTML. The UI 32 provides separate windows or exposable panels that enable a user to capture audio, video, other types of data clips for inclusion in a mail message. The client also has a storage 34 to store the data clips.

Detailed Description Text (9):
If the user wishes to open one of the mail messages, the user clicks a button or hyperlink that causes the client to send a request to the mail service 36 at the host mail server 24. In response, the mail service 36 opens the requested mail message, constructs a new HTML page containing the contents of the mail message, and downloads the HTML page to the client 22. The user can then undertake other email functions, such as replying to a message or creating a new message, with each action resulting in the mail service 36 creating and downloading an HTML page with an appropriate image. Thus, to the user, the client appears to be running a local email program.

Detailed Description Text (23):
FIG. 5 shows an email page 110 rendered by the browser UI 32. The email page 110 is accessed and displayed by selecting an appropriate hypertext link on a home page. The email page 110 includes a logo 112, a workspace 114, and multiple links 116-122. The workspace 114 has a text area 124, with "From", "To", and "Subject" lines, and a "Send" button 126. The user can enter a new mail message using this screen.

Detailed Description Text (24):
Link 116 is a hypertext link to a mail list that lists incoming mail messages chronologically. Link 118 is a hypertext link to a list of addresses that the user might wish to select an intended recipient. Links 120 and 122 are used to facilitate audio and video capture for inclusion of an audio or video clip in the email message. Actuation of link 120 brings up an audio capture panel that provides UI functions to enable a user to capture an audio stream input into the microphone. Actuation of link 122 brings up a video capture panel that provides UI functions to enable a user to capture a video stream from the video input or from the television signal.

Detailed Description Text (25):
FIG. 6 shows the audio capture panel 130 overlaid on the email page 110 in response to activation of "Recording" link 120. The audio capture panel 130 has a switch 132 that allows the user to capture audio signals from either the TV feed or from the microphone input 78. When a valid audio signal is present, an audio waveform (real or picture) appears in box 134. The user can capture an audio clip by pressing a "Record" button 136.

Detailed Description Text (30):
FIG. 7 shows the video capture panel 150 overlaid on the email page 110 in response to activation of the "Photo" link 122. The video capture panel 150 has a switch 152 that allows the user to capture video streams from either the TV or from the video input 80. When a valid video signal is present, the video stream appears in box 154. The user can capture a video clip by pressing a "Freeze" button 156, which causes a still image to appear in the box 154. Choosing the "Freeze" button 156 again restarts the video stream in the box 154 to enable the user to capture a different clip in the video stream.

Detailed Description Text (38):
At step 200, the user activates the link to the email page 110. In response, the browser sends a request over to the host email service 36, which generates and serves the email page 110 (step 202). The page is written in markup language, such as HTML. The browser renders the email page 110 as illustrated in FIG. 5 (step 204). At this point, the user can optionally enter text to write an email message.

Detailed Description Text (39):
At step 206, the user activates either the "Recording" link 120 or the "Photo" link 122. Activation of link 120 causes the audio capture panel 130 to appear over the email page 110, as shown in FIG. 6. Activation of link 122 causes the video capture panel 150 to appear over the email page 110, as shown in FIG. 7.

Detailed Description Text (41):
After the user has captured the desired audio or video clip, the user adds the clip to the email message by clicking the "Add to Message" button 138 or 158 in the capture panels (step 212). Activation of the button causes the browser to send a request for new HTML email page that shows both the message and the attached clip. However, rather than sending across the entire video or audio clip, the browser simply inserts a token that is representative of the attached clip. The token may include such information as the name of the audio or video file, the size of the video image, and so forth. This results in a substantial savings in transmission time as the large size audio or video files are not needlessly transferred over to the host mail server merely to be transferred back again with the next page.

Detailed Description Text (42):
At step 214, the host mail service generates a response specifying a new HTML page containing the email message. The response also includes the token and indicates a location in the new page at which the audio or video data is to be rendered. The host mail service returns the response to the client.

Detailed Description Text (43):
At step 216, the browser extracts the token and retrieves the audio or video file referenced by the token from the storage 34. The browser inserts the image or sound bite at the indicated location in the HTML email page. The browser then renders the HTML email page with the image or sound bite shown attached to the bottom (step 218).

Detailed Description Text (45):
When the message is complete, the user clicks the "Send" link 126 in the email screen (step 220 in FIG. 10). In response, the browser sends the text and audio/video file over to the host mail service using a conventional POST command of HTTP. The host mail service converts the text and audio/video files to a MIME message (step 222 in FIG. 10), and forwards the MIME message to the intended recipient (step 224 in FIG. 10). The intended recipient can then render the MIME message using a browser to read and see or listen to the attached clip.

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L8: Entry 6 of 12 File: USPT Aug 8, 2000

DOCUMENT-IDENTIFIER: US 6101485 A
TITLE: Electronic solicitations for internet commerce

Abstract Text (1):
A method for engaging in electronic commerce over the Internet, comprising the steps of: programming a first electronic mail (e-mail) message to include: a description of at least one product available for sale by an electronic commerce (e-commerce) site; a shopper selectable indicia for indicating that the shopper has chosen to purchase the at least one product; and, a shopper activatable link back to the e-commerce site for transmitting a second e-mail message including the shopper's choice to purchase the at least one product; transmitting the e-mail message over the Internet to at least one potential shopper; and, in response to receiving the second e-mail message transmitted back to the e-commerce site by activation of the link by the at least one potential shopper, consummating the purchase of the at least one product by the at least one potential shopper.

Application Filing Date (1):
19980326

Brief Summary Text (15):
A method for engaging in electronic commerce over the Internet, in accordance with an inventive arrangement, comprises the steps of: programming a first electronic mail (e-mail) message to include: a description of at least one product available for sale by an electronic commerce (e-commerce) site; a shopper selectable indicia for indicating that the shopper has chosen to purchase the at least one product; and, a shopper activatable link back to the e-commerce site for transmitting a second e-mail message including the shopper's choice to purchase the at least one product; transmitting the e-mail message over the Internet to at least one potential shopper; and, in response to receiving the second e-mail message transmitted back to the e-commerce site by activation of the link by the at least one potential shopper, consummating the purchase of the at least one product by the at least one potential shopper.

Brief Summary Text (19):
A computer programmed with a routine set of instructions for generating an electronic mail (e-mail) message for engaging in electronic commerce (e-commerce) over the Internet, in accordance with another inventive arrangement, comprises: means for including in the e-mail message a graphical user interface (GUI), the GUI including a description of at least one product available for sale by an e-commerce site; a shopper selectable indicia for indicating that the shopper has chosen to purchase the at least one product; and, a shopper activatable link back to the e-commerce site for transmitting a second e-mail message including the shopper's choice to purchase the at least one product; means for transmitting the e-mail message over the Internet to at least one potential shopper; and, means operable in response to receiving the second e-mail message transmitted back to the e-commerce site by activation of the link by the at least one potential shopper, consummating the purchase of the at least one product by the at least one potential shopper.

Brief Summary Text (23):
A computer programmed with a routine set of instructions for generating an

electronic mail (e-mail) message for engaging in electronic commerce (e-commerce) over the Internet, in accordance with yet another inventive arrangement comprises: means for generating an e-mail message having a graphical user interface (GUI) enabling a recipient of the e-mail message over the Internet to order at least one product from an e-commerce site without logging on to the e-commerce site, the GUI having at least one activatable link for transmitting purchase data back to the e-commerce site; means for transmitting the e-mail message over the Internet to at least one potential shopper; and, means operable in response to receiving the purchase data, transmitted back to the e-commerce site by activation of the link, for consummating the purchase of the at least one product by the at least one potential shopper.

Detailed Description Text (14):
The inventive arrangements described herein provide for the first time an e-mail message having a graphical user interface (GUI) enabling a recipient of said e-mail message over the Internet to order products from an e-commerce site without logging on to the e-commerce site. The GUI has at least one activatable link for transmitting purchase data back to said e-commerce site. The GUI can also be provided with activatable icons for purchasing one or more products when more than one product is available, and further activatable icons for entering quantities of the selected product or products to be purchased. The GUI is advantageously provided with another activatable icon for initiating a data transmission back to the e-commerce site, for example a second e-mail message, including information representing purchase data entered by the shopper. Finally, the GUI can also be provided with an activatable icon for accessing a search utility at said e-commerce site and an activatable icon for accessing a shopping utility at said e-commerce site.

CLAIMS:

1. A method for engaging in electronic commerce over the Internet, comprising the steps of:

programming a first electronic mail (e-mail) message to include: a description of at least one product available for sale by an electronic commerce (e-commerce) site; a shopper selectable indicia for indicating that said shopper has chosen to purchase said at least one product; and, a shopper activatable link back to said e-commerce site for directly transmitting to said e-commerce site a second e-mail message including said shopper's choice to purchase said at least one product;

transmitting said first e-mail message over the Internet from said e-commerce site directly to at least one potential shopper; and,

in response to receiving said second e-mail message transmitted back to said e-commerce site by activation of said link by said at least one potential shopper, consummating said purchase of said at least one product by said at least one potential shopper.

11. A computer programmed with a routine set of instructions for generating an electronic mail (e-mail) message for engaging in electronic commerce (e-commerce) over the Internet, the computer comprising:

means for including in said first e-mail message a graphical user interface (GUI), said GUI including a description of at least one product available for sale by an e-commerce site; a shopper selectable indicia for indicating that said shopper has chosen to purchase said at least one product; and, a shopper activatable link back to said e-commerce site for directly transmitting from said shopper to said e-commerce site a second e-mail message including said shopper's choice to purchase said at least one product;

means for transmitting said first e-mail message over the Internet from said e-commerce site directly to at least one potential shopper; and,

means operable in response to receiving said second e-mail message transmitted back to said e-commerce site by activation of said link by said at least one potential shopper, consummating said purchase of said at least one product by said at least one potential shopper.

21. A computer programmed with a routine set of instructions for generating an electronic mail (e-mail) message for engaging in electronic commerce (e-commerce) over the Internet, the computer comprising:

means for generating an e-mail message having a graphical user interface (GUI) enabling a recipient of said e-mail message over the Internet to order at least one product from an e-commerce site without logging on to said e-commerce site, said GUI having at least one activatable link for transmitting purchase data directly back to said e-commerce site;

means for transmitting said e-mail message over the Internet from said e-commerce site directly to at least one potential shopper; and,

means operable in response to receiving said purchase data, transmitted back to said e-commerce site by activation of said link, for consummating said purchase of said at least one product by said at least one potential shopper.

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L8: Entry 7 of 12 File: USPT Jul 11, 2000

US-PAT-NO: 6088702
DOCUMENT-IDENTIFIER: US 6088702 A

TITLE: Group publishing system

DATE-ISSUED: July 11, 2000

INVENTOR-INFORMATION:

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APPL-NO: 09/ 030107 [PALM]
DATE FILED: February 25, 1998

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US-CL-CURRENT: 707/103R; 707/1, 707/10, 707/9, 715/513, 715/514, 715/533, 715/733, 715/751, 715/906

FIELD-OF-SEARCH: 707/10, 707/1, 707/9, 707/906, 707/103, 707/104, 707/533, 707/514, 707/511, 345/329, 345/331

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL Clear

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☐	5220657	June 1993	Bly et al.	711/152
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ART-UNIT: 277

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ABSTRACT:

The present invention is a Group Publishing System (GPS) for permitting coordinated publishing, assembly and administration of texts by an unlimited number of authors or editors, each of whom may perform word processing, document assembly and editing functions on the same or different portions of a group authored project. Each user of the system also has the capability of electronically communicating through the GPS with any other user of the system working on the same project. The word-processing functions of the GPS are standardized according to pre-defined formats, and e-mail communication links are provided for communication between all users. The system displays the assembled or partially assembled product to all users and operates in multi-media (text, video, CD-ROM, audio and photographic) formats. The output of the GPS is directly viewable, printable or downloadable in publishable format.

24 Claims, 12 Drawing figures

L8: Entry 7 of 12 File: USPT Jul 11, 2000

DOCUMENT-IDENTIFIER: US 6088702 A
TITLE: Group publishing system

Abstract Text (1):
The present invention is a Group Publishing System (GPS) for permitting coordinated publishing, assembly and administration of texts by an unlimited number of authors or editors, each of whom may perform word processing, document assembly and editing functions on the same or different portions of a group authored project. Each user of the system also has the capability of electronically communicating through the GPS with any other user of the system working on the same project. The word-processing functions of the GPS are standardized according to pre-defined formats, and e-mail communication links are provided for communication between all users. The system displays the assembled or partially assembled product to all users and operates in multi-media (text, video, CD-ROM, audio and photographic) formats. The output of the GPS is directly viewable, printable or downloadable in publishable format.

Application Filing Date (1):
19980225

Brief Summary Text (4):
The present invention is a Group Publishing System (GPS) for permitting coordinated or simultaneous publishing, assembly and administration of texts by an unlimited number of authors or editors, each of whom may perform word processing, document assembly and editing functions on the same or different portions of a group authored project. Each user of the system also has the capability of communicating with any other user of the system working on the same project. The word-processing functions of the GPS are standardized according to pre-defined formats, and e-mail communication links are provided for communication between all users. The system displays the assembled or partially assembled product to all users and operates in multi-media (text, video, CD-ROM, audio and photographic) formats. The output of the GPS is directly viewable, printable or downloadable in publishable format.

Detailed Description Text (7):
The GPS of this invention offers support for organizing the production of documents. It assists with the layout of the document, with planning tasks and responsibilities, and with tracking the progress of work. In addition, through the e-mail links embedded at appropriate locations within the GPS, it is possible for any user of the GPS to contact any other participants on a project, without having to exit the GPS to use other applications. Furthermore, administration of the project assembly process, assignment of projects to authors and editors, and overall GPS maintenance by a GPS administrator is facilitated by an administration control center.

Detailed Description Text (15):
to determine whether there are books, topics, subtopics or sections of a group publishing project for which an assignment of author or editor has yet to be made, at this level, a display 133 of all available subtopics may be selected in order of the e-mail address of the author or editor assigned to the subtopic. Alternatively, a display according to subtopic name 134 may be selected, with an associated e-mail

links to the assigned author(s) or editor(s) for the subtopic. In addition, the user may choose to have a display generated of all topics by name for which no author or editor has yet been assigned 135. In addition, to provide a guide of the format of the GPS project data, sample topics of documents are viewable by selection of a "View Sample" 136 option. To assist in visualization of the various aspects of this invention, screen shots of specific embodiments are provided wherein like numbered sections of the represented display are as described in FIGS. 1-4. Thus, in FIG. 5, one embodiment of this level of the GPS is shown. Those skilled in the art will recognize that alternate layouts of the disclosed elements of the GPS are contemplated by this invention.

Detailed Description Text (17):
By selecting and highlighting the document 151, 152, 153 and selecting "View/Edit Document" 154, the GPS provides an publishing/editing control form 160 for the specific document. This form preferably comprises the following components: an indication of the current topic 161; an executable link to the current author's e-mail address 162; the name of the current or main author of the document 163; the name of the editor 164; an executable link to the assigned editor's e-mail address 165; a listing of the current document's subheadings or subsections for the author to select which document section is to be worked on 166; an option to "Edit a Section," 167 which, upon selection, executes the command and displays the selected document section to be edited; an option 168 to view the entire chapter in view-only mode; an option to "Spell Check" the selected section 169, selection of which opens the entire document for spell checking according to known algorithms; a selection 170 permitting the author to enter personal information such as their name, address, telephone number and similar data; 171 is a display of the date and time when the document was last modified; 172 displays the date on which the document was finally completed; 173, 174, 175, 176 are displays of the completion date of assigned aspects of the editing tasks associated with the document completion (for example, for a medically related document, these sections might include editorial signoffs by medical, pharmaceutical, grammatical and other experts, as well as signoff, for example, by an executive editor.; editorial titles, naturally, vary with the project); 177 provides a link to one or more particularly desirable databases or search engines (for example, for a medically related document, having a live link to a Medline Search engine at this point is preferred; see FIG. 8 for one embodiment of the layout of these GPS functions).

Detailed Description Text (19):
In response to executing the "View/Edit Chapter" selection 196, the GPS displays the Edit Control Form 200 for the specific document. This form preferably comprises the following components: an indication of the current topic 201; an executable link to the current author's e-mail address 202; the name of the current or main author of the document 203; the name of the editor 204; an executable link to the assigned editor's e-mail address 205; a listing of the current document's subheadings or subsections for the editor to select which document section is to be worked on 206; an option to "Edit a Section," 207 which, upon selection, executes the command and displays the selected document section to be edited; an option 208 to view the entire chapter in view-only mode; an option to "Spell Check" the selected section 209, selection of which opens the entire document for spell checking according to known algorithms; a selection 210 permitting the editor to enter personal information such as their name, address, telephone number and similar data; 211 is a display of the date and time when the document was last modified; 212 displays the date on which the document was finally completed; 213, 214, 215, 216 are displays of the completion date of assigned aspects of the editing tasks associated with the document completion (for example, for a medically related document, these sections might include editorial signoffs by medical, pharmaceutical, grammatical and other experts, as well as signoff, for example, by an executive editor.; editorial titles, naturally, vary with the project); 217 provides a link to one or more particularly desirable databases or search engines (for example, for a medically related document, having a live link to a Medline

Search engine at this point is preferred; see FIG. 11 for one embodiment of the layout for these functions).

CLAIMS:

2. The GPS of claim 1 wherein said GPS further comprises imbedded electronic mail links at each of the specified interfaces of said GPS to accommodate electronic communication between authors and editors assigned by said administrator to collaboration on a specified GPS project, and between said authors and editors and said administrator.

12. The GPS of claim 11 wherein said editor control interface providing tracking of actions implemented by said editor upon successful login to a selected project comprises input, executable or informational fields selected from the group consisting of current topic selection, executable current author e-mail, current author name, current editor name, executable current editor e-mail, a hypertext list of selected topic or subtopic document sections, executable edit selection, executable view (read-only) selection, executable spell check selection, author information edit field, a representation of the date and time of the last modification to the selected GPS project section, a representation of the date of completion of the selected GPS project section, a representation of the date of completion of each of a plurality of section editing subtasks, an executable link to search an external database, and a combination of said input, executable or informational fields.

19. A Group Publishing System (CPS) for asynchronous collaborative publishing and editing of a multimedia document project comprising text data, video data, audio data or combinations of these data forms, said GPS comprising:

(a) a server hosting the GPS, to which a plurality of contributing authors or editors may link directly by personal computer upon receipt of authorization to link from a GPS administrator;

(b) a project selection interface as a top level to which an authorized author or editor initially links upon linking to said GPS, the project selection interface including a hierarchical representation of project sections and subsections of a GPS multimedia document project, each of which representations is a hyperlink to said section or said subsection of said GPS project, such that upon selection by the author or editor, said section or subsection is made available for modification to said author or editor, provided that said author or editor successfully is able to login to said GPS;

(c) a login control center for verification of an author's authority to access a multimedia document project comprising one of text data, video data, audio data and combinations thereof, selected from said project selection interface;

(d) an author control interface providing project status and control of author functions implemented by said author upon successful login to a selected project;

(e) a login control center for verification of an editor's authority to access a multimedia document project comprising one of text data, video data, audio data and combinations thereof, selected from said project selection interface;

(f) an editor control interface providing project status and control of editor functions implemented by said editor upon successful login to a selected project;

(g) an administrative control interface whereby overall administration of project selection for inclusion in the GPS, author and editor assignments, and project completion status is achieved; and

(h) the GPS further including imbedded electronic mail links at each of the specified interfaces of said GPS to accommodate electronic communication between authors and editors assigned by said administrator to collaboration on a specified GPS project, and between said authors and editors and said administrator,

wherein said GPS is implemented on the Internet, and

wherein said server hosting said GPS is accessed by each: contributing author or editor by providing the uniform resource locator (URL) to a browser which then links to said server.

22. A Group Publishing System (GPS) for asynchronous collaborative publishing and editing of a multimedia document project comprising text data, video data, audio data or combinations of these data forms, said GPS comprising:

(a) a server hosting the CPS, to which a plurality of contributing authors or editors may link directly by personal computer upon receipt of authorization to link from a GPS administrator;

(b) a project selection interface as a top level to which an authorized author or editor initially links upon linking to said GPS;

(c) a login control center for verification of an author's authority to access a multimedia document project comprising one of text data, video data, audio data and combinations thereof, selected from said project selection interface, the login control center including a field for input by the author of the author's GPS system username, password, and an executable login command;

(d) an author control interface providing project status and control of author functions implemented by said author upon successful login to a selected project, the author control interface including input, executable or informational fields selected from the group consisting of current topic selection, executable current author e-mail, current author name, current editor name, executable current editor e-mail, a hypertext list of selected topic or subtopic document sections, executable edit selection, executable view (read-only) selection, executable spell check selection, author information input field, a representation of the date and time of the last modification to the selected GPS project section, a representation of the date of completion of the selected GPS project section, a representation of the date of completion of each of a plurality of section editing subtasks, an executable link to search an external database, and a combination of said input, executable or informational fields;

(e) a login control center for verification of an editor's authority to access a multimedia document project comprising one of text data, video data, audio data and combinations thereof, selected from said project selection interface;

(f) an editor control interface providing project status and control of editor functions implemented by said editor upon successful login to a selected project;

(g) an administrative control interface whereby overall administration of project selection for inclusion in the GPS, author and editor assignments, and project completion status is achieved; and

(h) the GPS further including imbedded electronic mail links at each of the specified interfaces of said GPS to accommodate electronic communication between authors and editors assigned by said administrator to collaboration on a specified GPS project, and between said authors and editors and said administrator,

wherein said GPS is implemented on the Internet, and wherein said server hosting said GPS is accessed by each contributing author or editor by providing the uniform

resource locator (URL) to a browser which then links to said server.

23. A Group Publishing System (GPS) for asynchronous collaborative publishing and editing of a multimedia document project comprising text data, video data, audio data or combinations of these data forms, said GPS comprising:

(a) a server hosting the GPS, to which a plurality of contributing authors or editors may link directly by personal computer upon receipt of authorization to link from a GPS administrator;

(b) a project selection interface as a top level to which an authorized author or editor initially links upon linking to said GPS;

(c) a login control center for verification of an author's authority to access a multimedia document project comprising one of text data, video data, audio data and combinations thereof, selected from said project selection interface, the login control center further including a field for input by said editor of said editor's GPS system username, password, type of editor, and an executable login command;

(d) an author control interface providing project status and control of author functions implemented by said author upon successful login to a selected project;

(e) a login control center for verification of an editor's authority to access a multimedia document project comprising one of text data, video data, audio data and combinations thereof, selected from said project selection interface;

(f) an editor control interface providing project status and control of editor functions implemented by said editor upon successful login to a selected project, the editor control interface further including input, executable or informational fields selected from the group consisting of current topic selection, executable current author e-mail, current author name, current editor name, executable current editor e-mail, a hypertext list of selected topic or subtopic document sections, executable edit selection, executable view (read-only) selection, executable spell check selection, author information edit field, a representation of the date and time of the last modification to the selected GPS project section, a representation of the date of completion of the selected GPS project section, a representation of the date of completion of each of a plurality of section editing subtasks, an executable link to search an external database, and a combination of said input, executable or informational fields;

(g) an administrative control interface whereby overall administration of project selection for inclusion in the GPS, author and editor assignments, and project completion status is achieved;

(h) the CPS further comprising imbedded electronic mail links at each of the specified interfaces of said GPS to accommodate electronic communication between authors and editors assigned by said administrator to collaboration on a specified GPS project, and between said authors and editors and said administrator,

wherein said GPS is implemented on the Internet, and

wherein said server hosting said CPS is accessed by each contributing author or editor by providing the uniform resource locator (URL) to a browser which then links to said server.

24. A Group Publishing system (GPS) for asynchronous collaborative publishing and editing of a multimedia document project comprising text data, video data, audio data or combinations of these data forms, said GPS comprising:

(a) a server hosting the GPS, to which a plurality of contributing authors or

editors may link directly by personal computer upon receipt of authorization to link from a GPS administrator;

(b) a project selection interface as a top level to which an authorized author or editor initially links upon linking to said GPS;

(c) a login control center for verification of an author's authority to access a multimedia document project comprising one of text data, video data, audio data and combinations thereof, selected from said project selection interface;

(d) an author control interface providing project status and control of author functions implemented by said author upon successful login to a selected project;

(e) a login control center for verification of an editor's authority to access a multimedia document project comprising one of text data, video data, audio data and combinations thereof, selected from said project selection interface;

(f) an editor control interface providing project status and control of editor functions implemented by said editor upon successful login to a selected project;

(g) an administrative control interface whereby overall administration of project selection for inclusion in the GPS, author and editor assignments, and project completion status is achieved, the administrative control interface further including input, executable or informational fields selected from the group consisting of a master editor, a list of all author and editor e-mail addresses, a list of all CPS book or project topics including e-mail addresses of all assigned authors or editors, a list of all GPS projects to which authors or editors have yet to be assigned, a utilities to facilitate maintenance of all aspects of the URL, an executable means to permit deletion of authors or other GPS data, a list of project status, a list of all author passwords and project assignments, a list of all editor passwords and project assignments, a list of all author's e-mail addresses and other information, a list of chapter assignments, a statistical interface for tracking of GPS usage, an executable e-mail broadcast permitting email of a given message to all GPS users, a means for entrance of new author e-mail, a means for author information editing, a means for editor assignment to GPS project sections, a means for topic deletion, a means for adding a new topic to the GPS, and a combination of said input, executable or informational fields; and

(h) the GPS further including imbedded electronic mail links at each of the specified interfaces of said GPS to accommodate electronic communication between authors and editors assigned by said administrator to collaboration on a specified GPS project, and between said authors and editors and said administrator,

wherein said GPS is implemented on the Internet, and

wherein said server hosting said GPS is accessed by each contributing author or editor by providing the uniform resource locator (URL) to a browser which then links to said server.

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L8: Entry 8 of 12 File: USPT Jan 12, 1999

DOCUMENT-IDENTIFIER: US 5860068 A
TITLE: Method and system for custom manufacture and delivery of a data product

Application Filing Date (1):
19971204

Detailed Description Text (8):
Each of the machines (possibly including the network computers located at the retail establishments) that interface to or form part of the system preferably include a "suite", or collection of known Internet tools to access other computers of the network and thus to obtain certain services. These services may include one-to-one messaging (e-mail), one-to-many messaging (bulletin board), on-line chat, file transfer and browsing. Various known Internet protocols are used for these services. Thus, for example, browsing is effected using the Hypertext Transfer Protocol (HTTP) or such other protocols hereinafter developed or adopted, which provides users access to multimedia files using Hypertext Markup Language (HTML) or any other hereinafter developed or adopted markup, scripting or alternative language or technique. The collection of servers that use HTTP comprise the World Wide Web, which is currently the Internet's multimedia information retrieval system. Digital files are normally transferred over the Internet using the File Transfer Protocol (FTP) in a known manner.

Detailed Description Text (25):
In particular, after credit or payment is verified, the management subsystem (or the Internet server) preferably notifies the customer of an order "confirmation" number. Although not required, this notification may be in the form of an e-mail message that includes a hyperlink (with the order number comprising part of the link). When the user selects the hyperlink, the user's Web browser is launched to a tracking page (which is usually a page at the Internet server 15) that provides order status updates to the customer. The user may alternatively navigate to the tracking page and enter a tracking number to obtain the given manufacturing status updates.

Detailed Description Text (27):
Shipping management subsystem 19 also preferably generates a second e-mail message or otherwise provides information to the customer that his or her custom CD-ROM has been shipped. Thus, for example, the second e-mail may include a hyperlink with an embedded shipping tracking number such that when the customer activates the link, he or she may access a tracking system (e.g., a third party site such as the UPS.RTM. or Federal Express.RTM. Web site) so that the particular movements of the product can be readily determined.

L8: Entry 10 of 12 File: USPT May 12, 1998

US-PAT-NO: 5751960
DOCUMENT-IDENTIFIER: US 5751960 A
**** See image for Certificate of Correction ****

TITLE: Electronic mail system using double forwarding suppressing function for administrating electronic message that having data format that can not be handled at destination side

DATE-ISSUED: May 12, 1998

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PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL Clear

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☐	4754428	June 1988	Schultz et al.	395/200.18
☐	5018194	May 1991	Suzuki et al.	379/207

☐	5202977	April 1993	Pasetes, Jr. et al.	395/500
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Debenham, "Coomunications Support for EDI", 1991, pp. 1-3.

ART-UNIT: 237

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ABSTRACT:

A method and an apparatus for administrating electric mails in linking an electronic mail systems among electronic mail systems. The object is to hold the electronic mail message in the user ID means of the forwarding side when it is requested to forward an electronic mail message in a data format that cannot be handled by the electronic mail system of the destination of forwarding. In the method of linking electronic mail systems which forwards an electronic mail message from an electronic mail system of the forwarding side having a function for suppressing double forwarding to another electronic mail system, when the electronic mail message being forwarded is of a format that cannot be handled by the electronic mail system which is the destination of forwarding, the electronic mail message forwarded to a linking ID means in the electronic mail system of the forwarding side is transmitted to another linking ID means in the same electronic mail system, and the electronic mail message is forwarded from this another ID means to the user ID means of the forwarding side.

13 Claims, 7 Drawing figures

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L8: Entry 10 of 12 File: USPT May 12, 1998

DOCUMENT-IDENTIFIER: US 5751960 A
** See image for Certificate of Correction **
TITLE: Electronic mail system using double forwarding suppressing function for administrating electronic message that having data format that can not be handled at destination side

Abstract Text (1):
A method and an apparatus for administrating electric mails in linking an electronic mail systems among electronic mail systems. The object is to hold the electronic mail message in the user ID means of the forwarding side when it is requested to forward an electronic mail message in a data format that cannot be handled by the electronic mail system of the destination of forwarding. In the method of linking electronic mail systems which forwards an electronic mail message from an electronic mail system of the forwarding side having a function for suppressing double forwarding to another electronic mail system, when the electronic mail message being forwarded is of a format that cannot be handled by the electronic mail system which is the destination of forwarding, the electronic mail message forwarded to a linking ID means in the electronic mail system of the forwarding side is transmitted to another linking ID means in the same electronic mail system, and the electronic mail message is forwarded from this another ID means to the user ID means of the forwarding side.

Application Filing Date (1):
19940908

Brief Summary Text (3):
The present invention relates to a method of administrating electronic messages in linking electronic mail systems at the time of forwarding electronic mail through electronic mail systems handling electronic mail in different data formats.

Brief Summary Text (6):
Technology has also been realized according to which a plurality of different electronic mail systems can be linked together through a linking system, and mail in an electronic mail system can be forwarded to another electronic mail system via the linking system. When a user is a subscriber to a plurality of electronic mail systems, the electronic mail messages in the electronic mail systems addressed to the user can be intentionally and collectively forwarded to a particular electronic mail system that is frequently used by the user.

Brief Summary Text (7):
FIG. 5 illustrates a conventional linking system for forwarding electronic mail messages through a plurality of different independent electronic mail systems which is taught, for example, in Japanese Patent Application No. 3-014055. In FIG. 5, reference numerals 1 and 2 denote electronic mail systems different from each other, and 3 denotes a linking system for linking the electronic mail systems 1 and 2 together.

Brief Summary Text (8):
Here, let it be assumed that a user ID(Ax) is an ID (identifier) of a user X in an electronic mail system 1, a linking ID(Ay) is an ID of the linking system 3 in the

electronic mail system 1, a linking ID(Bx) is a user ID at a destination in the electronic mail system 2 to where mail from the user X will be forwarded, and a linking ID(By) is an ID of the linking system 3 in the electronic mail system 2.

Brief Summary Text (10):
The linking system 3 is equipped with an ID correspondence table 31 which contains relationships between user ID means at the sources and user ID means at the destinations when electronic mail message is to be forwarded from one electronic mail system to another electronic mail system, and with a mail transmission/reception processing unit 32.

Brief Summary Text (11):
According to this electronic mail administrating system, the linking system 3 forwards electronic mail messages arriving, for example, at the user ID means serving as a buffer or a memory having ID as ID(Ax) in the electronic mail system 1 to the user ID means also serving as a buffer or a memory having ID as ID(BX) that has been set in advance by the user, in another electronic mail system 2, by utilizing a function for automatically forwarding the electronic mail message in the electronic mail system.

Brief Summary Text (12):
For example, in a conventional electronic mail system 1, it is previously set that an electronic mail message received by a user ID means serving as a message receiving means 12, having user ID(Ax) should be automatically forwarded to a linking ID means 13 controlled by the linking system 3 and having the linking ID, i.e., ID(Ay). Therefore, electronic mail message addressed to the user ID means 12 having ID(Ax) of an user X that has arrived from another user, is forwarded to the linking ID means 13 having the linking ID(Ay). The electronic mail linking system 3 receives electronic mail message from the linking means 3 having the linking ID(Ay) of the electronic mail system 1, picks up the ID(Ax) of the source side from the header information of the electronic mail, learns the user ID means 22, having the user ID(Bx) of the destination by retrieving it from the ID correspondence table 31, and transmits the electronic mail message to the receiving user ID means 22 having the user ID(BX) at the destination via the linking ID means 23 having the linking ID(By) of the linking system 3 in the electronic mail system 2. Thus, the mail can be forwarded between different electronic mail systems.

Brief Summary Text (13):
Attention must be given when this automatic forwarding function is to be utilized. For instance, in the electronic mail system 1, when the message received by the user ID means 12, having the ID(Ax) has been set to be forwarded to the linking ID means 13 having the ID(Ay) and the message received by the means 13 having the ID (Ay) has been set to be forwarded to the user ID means 12 having the ID(Ax), electronic mail message forwarded to the user ID means 13 having ID(Ay) from the means 12 having user ID(Ax), is forwarded to the user ID means 12 from linking ID means 13, each serving as a data buffer or memory and is forwarded again by the user ID means 12 to the linking ID means 13, establishing a loop in which the electronic mail is forwarded endlessly. This includes such a complex case in that when an electronic mail message is repeatedly forwarded between the above-mentioned two means, the message may be passed through a means again, through which the message has passed previously, causing this operation to be endless loop.

Brief Summary Text (14):
In order to avoid a loop, therefore, many electronic mail systems employ (1) a method of suppressing double forwarding or (2) a method of stopping an electronic mail message from being forwarded again to user ID means or linking ID means through which the message has once passed.

Brief Summary Text (15):
According to the former method of suppressing double forwarding, the electronic

mail message is inhibited from being forwarded two times consecutively. For instance, when it is designated to forward the electronic mail message to one ID means having a given ID and when the electronic mail message is forwarded to the ID means, the electronic mail message, that is forwarded is inhibited from being forwarded to another ID means. That is, for example, even when the electronic mail message was once forwarded, from the user ID means 12 having ID(Ax) to the linking ID means 13 having ID(Ay) and when the electronic mail message is about to be forwarded again from the linking ID means 13 having ID(Ay) to the user ID means 12 having ID(Ax), this designation is neglected.

Brief Summary Text (17):
In the above description, the practical linking system forwards the electronic mail message in bi-directional communication system formed between the electronic mail system 1 and the electronic mail system 2. In FIG. 5 and in the description of the invention mentioned later, however, the electronic mail is forwarded from the electronic mail system 1 to the electronic mail system 2 in order to simplify the description.

Brief Summary Text (18):
In many electronic mail systems, the electronic mail messages handled in the systems have data in different formats. In order to exchange the electronic mail among the electronic mail systems having different data formats, therefore, the electronic mail linking system executes a code conversion on electronic mail (e.g., conversion from JIS code into shifted code) or a format conversion.

Brief Summary Text (19):
In, for example, binary mail (facsimile data, etc.), binary mail that arrives at an electronic mail system (e.g., electronic mail system 1) that can handle it, can be forwarded to an electronic mail system (e.g., electronic mail system 2) that cannot handle binary mail. In the electronic mail system 2 which is the destination of forwarding the binary mail cannot be restored or even if it could be restored, the data would become meaningless. In the conventional linking system, however, no particular attention is given to such an event, and the binary mail is simply forwarded even to an electronic mail system that cannot handle the binary mail. As a result, it often happens that a user is not informed of the fact that electronic mail having a different data format has been forwarded to him.

Brief Summary Text (21):
The present invention was accomplished in view of the above-mentioned problems, and its object is to provide a method for administrating electronic mail messages in linking electronic mail systems handling data in different formats, the electronic mail message is held in the memory or buffer means such as the user ID means having the user ID that is the source of forwarding the electronic mail message and, besides, this fact is noticed to the user at the destination to which the message is to be forwarded, by utilizing a function for suppressing double forwarding of electronic mail message or a function for stopping the electronic mail message from being forwarded to the another data buffer or data memory means having the ID through which it has once passed when it is requested to forward an electronic mail message the data format of which cannot be handled by the electronic mail system to which the message to be forwarded.

Brief Summary Text (22):
In order to achieve the above-mentioned object, the method for administrating electronic messages in linking electronic mail systems of the present invention basically employs the technical method described below.

Brief Summary Text (23):
The method for administrating electronic messages involves linking an electronic mail systems comprising a linking system, an electronic mail system which is a forwarding side having a function for suppressing a double-forward of the message,

connected to the linking system, and an electronic mail system which is the destination to which the message to be forwarded, and in which linking ID means controlled by the linking system, are set in each of the electronic mail systems, and wherein an electronic mail message forwarded to the linking ID means from the user ID means of the electronic mail system of the forwarding side, is forwarded to a linking ID means of opposite electronic mail system of the destination to which the message to be forwarded, through the linking system, the improvement wherein at least two linking ID means are arranged at least in the electronic mail system of the forwarding side and when it is judged that the electronic mail message forwarded from electronic mail system of the forwarded side, has a data format that cannot be handled by the electronic mail system of the destination side to which the message to be forwarded, the linking system of the forwarding side, transmits the electronic mail message, forwarded to a first linking ID means provided in the electronic mail system of the forwarding side, to a second linking ID means provided in the same electronic mail system, and transmits again the electronic mail message from the second linking ID means to the user ID means of the same electronic mail system.

Drawing Description Text (3):
FIG. 1(B) is a block diagram illustrating the constitution of a method of linking electronic mail according to another embodiment of the present invention;

Drawing Description Text (6):
FIGS. 4(A) and 4(B) are diagrams illustrating a linking system which executes the method of linking electronic, mail according to the embodiment of the present invention; and

Detailed Description Text (2):
An embodiment of a system for administrating electronic messages in linking electronic mail systems according to the present invention will now be described in detail with reference to the drawings.

Detailed Description Text (4):
In order to solve the above-mentioned problems according to one aspect of the present invention as shown in FIG. 1(A), there is provided a method for administrating electronic mail messages in linking electronic mail systems comprising a linking system 3, an electronic mail system 1, which is the forwarding side having a double forward-suppressing function connected to the linking system 3, and an electronic mail system 2 which is the destination side to which the message to be forwarded, and in which linking ID means 13, 23 controlled by the linking system 3 are provided in each of the electronic mail system 1 of the forwarding side and the electronic mail system 2 of the destination side, respectively, and electronic mail message forwarded to the linking ID means 13 from a user ID means 12 of the forwarding source in the electronic mail system 1 which is the forwarding side is forwarded to a user ID means 22 of the destination of forwarding, via the linking ID means 23, in the electronic mail system 2 of the destination side, the improvement wherein at least two linking ID means 13 and 14 are arranged in at least the electronic mail system 1 of the forwarding side, and when the electronic mail message forwarded from the electronic mail system 1 of the forwarding side has a data format that cannot be handled by the electronic mail system 2 of the destination side to which the message should be forwarded, the linking system 3 transmits the electronic mail message forwarded to the first linking ID means 13 in the electronic mail system 1 of the forwarding side to the second linking ID means 14 in the electronic mail system 1 of the forwarding side and forwards again the electronic mail message from the second linking ID means 14 to the user ID means 13 of the forwarding side.

Detailed Description Text (5):
According to another aspect of the present invention, as shown in FIG. 1(B) the basic construction thereof is similar to those as shown in FIG. 1(A), when it is

judged that the electronic mail message forwarded from the electronic mail system 1 which is the forwarding side is of a data format that cannot be handled by the electronic mail system 2 which is the destination side, the linking system 3 temporarily stores in its mail transmission/reception processing unit 32, the electronic mail message that is forwarded to the first linking ID means 13 in the electronic mail system 1 of the forwarding side, and then transmits said electronic mail message to the second linking ID means 14 in the electronic mail system 1 of the forwarding side, after that transmits said electronic mail message from the second linking ID means 14 to the first linking ID means 13, and then forwards said electronic mail message from the first linking ID means 13 to the user ID means 12 of the forwarding side.

Detailed Description Text (6):
According to a further aspect of the present invention as shown in FIG. 2, there is provided a system for linking electronic mail systems wherein linking ID means 13 and 23 controlled by the linking system 3 are provided in each of the electronic mail system 1 of the forwarding side having a function 11 for suppressing the forwarding to the ID means to which the electronic mail message has been forwarded, and the electronic mail system 2 of the destination side, and the electronic mail message forwarded to the linking ID means 13 from a user ID means 12 provided in the forwarding side in the electronic mail system 1 is forwarded to a user ID means 22 in the electronic mail system 2 of the destination side to which the message should be forwarded via the linking ID 23, the improvement wherein when the electronic mail message forwarded from the electronic mail system 1 of the forwarding side has data of a format that cannot be handled by the electronic mail system 2 of the destination side, the linking system 3 transmits to the user ID means 12 as a destination of forwarding, the electronic mail message that is forwarded to the linking ID means 13 from the user ID means 12 in the electronic mail system 1 of the forwarding side.

Detailed Description Text (7):
According to a still further aspect of the present invention as shown in FIG. 3, there is provided a method for administrating the electronic messages in linking an electronic mail systems wherein when the linking ID means 13 in the electronic mail system 1 of the forwarding side has received the electronic mail message of a data format that cannot be handled by the electronic mail system 2 of the destination side, a notifying message that notifies this fact is transmitted to the user ID means 22 of the destination side to which the message should be forwarded in the electronic mail system 2 by using means 21 having a suitable electronic mail function.

Detailed Description Text (8):
According to an aspect of the present invention, there is provided a linking system having at least two linking ID means 13 and 14 in an electronic mail system 1 that has a function for suppressing double forwarding, comprising:

Detailed Description Text (9):
a mail transmission/reception processing unit 32 having a function for determining whether or not an electronic mail message forwarded to the first linking ID 13 has a data format that can be handled by an electronic mail system 2 of the destination side to which the message should be forwarded; and

Detailed Description Text (10):
a mail processing unit 33 which, when said mail transmission/reception processing unit 32 judges that the electronic mail cannot be handled by the electronic mail system 2 of the destination side, designates the second ID means 14 which is separated from the first linking ID means 13 to forward the electronic mail message to the user ID means 12 which is the source that has forwarded the electronic mail message as a destination to which the message should be forwarded and so controls said first linking ID means 13 as to transmit said electronic mail message to the

second linking ID means 14.

Detailed Description Text (11):
That is, when the electronic mail stored in the first linking ID means 13 is to be transmitted to the second linking ID means 14 according to the above-mentioned embodiment, it is not allowed to transmit new electronic mail message from the first linking ID means 13 to the second linking ID means 14 if the old electronic mail message is stored in the second linking ID means 14. Therefore, the electronic mail message that has been stored in the second linking ID means 14 must be transmitted to the user ID means 12 so that the memory of the second linking ID means 14 becomes empty and, then, the required electronic mail message must be transmitted from the first linking ID means 13 to the second linking ID means 14. Thereafter, the second linking ID means 14 forwards the electronic mail message received from the first linking ID means 13 to the user ID means 12.

Detailed Description Text (12):
According to another aspect of the present invention, there is provided a linking system wherein the mail processing unit 33 designates the first linking ID means 13 to forward the electronic mail message to the user ID means 12 that is the source of forwarding the electronic mail message instead of designating the first linking ID means 13 to forward the electronic mail message to the second linking ID means 14, and controls the second linking ID means 14 so as to transmit the electronic mail message to the first linking ID means 13.

Detailed Description Text (13):
This embodiment is based upon the same technical idea as that of the aforementioned embodiment. In transmitting the electronic mail message from the second linking ID means 14 to the first linking ID means 13 in the system of FIG. 1(B), in particular, the memory of the first linking ID means 13 must be rendered empty. For this purpose, a step is provided to transmit the electronic mail information stored in the first linking ID means 13 to the user ID means 12.

Detailed Description Text (14):
According to a further aspect of the present invention, there is provided an administrating electronic messages in linking electronic mail systems comprising a mail transmission/reception processing unit 32 having a function for judging whether or not an electronic mail message forwarded to a linking ID means in an electronic mail system having a function for suppressing the forwarding to the ID means to which the electronic mail message has been forwarded, can be handled by an electronic mail system which is the destination to where the electronic mail message is forwarded, and a mail processing unit 33 which, when said mail transmission/reception processing unit 32 judges that the electronic mail cannot be handled by the electronic mail system of the destination to where it is forwarded, controls said linking ID means to transmit the electronic mail message to the user ID means which is the source side of forwarding the electronic mail message.

Detailed Description Text (15):
According to a still further aspect of the present invention, there is provided a linking system comprising an ID correspondence table 31 in which is stored a user ID of the destination that corresponds to a user ID of the forwarding source wherein, when a mail transmission/reception processing unit 32 renders the judgement that an electronic mail message cannot be handled by the destination electronic mail system, a mail processing unit 33 forms a notifying mail message for notifying this fact, and transmits said notifying mail message from a linking ID means in the electronic mail system of the destination side to a user ID means of the destination side, retrieved from the ID correspondence table 31.

Detailed Description Text (16):
Referring to FIG. 1(A), the electronic mail system 1 has a function for suppressing double forwarding. The user ID means having user ID as ID(Ax) of the user X has

been designated to forward the electronic mail message, and the electronic mail message transmitted to the user ID means 12, identified by the user ID(Ax), is automatically forwarded to the linking ID means 13 identified by the linking ID(Ay) which is controlled by the linking system 3 in the electronic mail system 1. Here, it is presumed that the electronic mail system 1 handles the electronic mail message (such as binary data, facsimiles and the like) of a data format that cannot be handled by the electronic mail system 2.

Detailed Description Text (17):
It is now presumed that the electronic mail message forwarded to the linking ID means 13 having an identification number as ID(Ay) of the linking system 3 from the user ID means 12 having the user ID(Ax) is binary data.

Detailed Description Text (18):
(1) In the linking system, the mail transmission/reception processing unit 32 judges that the electronic mail message received by the linking ID means 13 having the linking ID(Ay) is binary mail.

Detailed Description Text (19):
(2) While being controlled by the mail processing unit 33, another linking ID means 14 having the identification number as ID(Az) controlled by the linking system 3 in the electronic mail system 1, is designated to forward the electronic mail message to the user ID means 12 having ID(Ax) as an identification number, and the electronic mail message is transmitted from the linking ID means 13 having ID(Ay) as an identification number to the linking ID(Az) 14, i.e., the linking ID means 14 having an ID number of ID(Az).

Detailed Description Text (20):
(3) The linking ID(Az) 14 forwards the electronic mail that is received to the user ID means 12 having the user ID(Ax).

Detailed Description Text (21):
(4) The user ID means 12 having the user ID as ID(Ax) has been designated to forward the electronic mail message that is received to the linking ID means 13 having the linking ID(Ay). Here, however, the electronic mail message from the linking ID(Az) means 14, having linking ID as is a forwarded mail, and it is not allowed to forward it consecutively to another ID means due to the function for suppressing double forwarding. Accordingly, the designation of forwarding is neglected, and the electronic mail message (binary data) that is received stays at the user ID means 12 having user ID as ID(AX) which is the forwarding source.

Detailed Description Text (22):
In the above-mentioned method of linking electronic mail systems, the binary data received by the linking ID means 13 having ID as ID(Ay) is transmitted to the linking ID means 14 having ID as ID(Az), and is then forwarded from the linking ID means 14 having ID(Az) to the user ID means 12 having ID(Ax). The present invention, however, is in no way limited thereto only. That is, as shown in FIG. 1 (B), the linking system 3 may once down-load the binary data received by the linking ID means 13 having ID(Ay) in its own station 3, designate the linking ID means 13 having ID(Ay) to forward the electronic mail message to the user ID means 12 having ID(Ax), transmit the down-loaded electronic mail message to the linking ID means 14 having ID(Az), transmit a binary data from the linking ID means 14, having ID(Az) to the linking ID means 13 having ID(Ay) and may, then, forward it from the linking ID means 13 having ID(Ay) to the user ID means having ID(Ax).

Detailed Description Text (23):
In FIG. 2, the electronic mail system 1 is suppressing forwarding to an ID means through which an electronic mail has once passed. Similarly to the above-mentioned case, furthermore, the user ID means 12 having ID(Ax) of the user X has been designated to forward the electronic mail to the linking ID means 13 having ID(Ay).

Here, furthermore, the electronic mail system 1 handles the electronic mail message (binary data in this case) in a format that cannot be handled by the electronic mail system 2.

Detailed Description Text (24):
It is now presumed that the electronic mail forwarded from the user ID means 12 having ID(Ax) to the linking ID means having ID(Ay) of the linking system 3 is binary data.

Detailed Description Text (25):
(1) In the linking system, the mail transmission/reception unit 32 judges that the electronic mail message received by the linking ID means 13 having ID(Ay) is binary data.

Detailed Description Text (26):
(2) Then, being controlled by the mail processing unit 33, the electronic mail message forwarded to the linking ID means 13 having ID as ID(Ay) is transmitted from the linking ID means 13 having ID(Ay) to the user ID means 12 having ID(Ax) which is the forwarding side.

Detailed Description Text (27):
(3) The user ID means 12 having ID(Ax) has been designated to forward the electronic mail message that is received by the linking ID means 13 having ID(Ay). However, since the linking ID means 13 having ID(Ay) is the same linking ID means (source of transmission) through which the electronic mail has once passed, the designation of forwarding is neglected. Accordingly, the electronic mail message (binary data) stays at the user ID means 12 having ID(Ax) which the forwarding side.

Detailed Description Text (28):
FIG. 3 illustrates a system similar to that of FIG. 1 wherein, when the electronic mail message received by the linking ID means 13 having ID(Ay) is binary, the binary data is returned to the user ID means 12 having ID(Ax) which is the forwarding side, and the mail processing unit 33 in the linking system 3 picks up the user ID means 12 having ID as ID(Ax) which is the forwarding side from header information of the binary mail message and searches the ID correspondence table 31 to obtain a user ID(Bx) of the user ID means 22 at a destination of forwarding in the electronic mail system 2 which is the destination of forwarding. Then, for example, a notifying mail message (e.g., an electronic mail message of a form that can be handled by the electronic mail system 2, such as a text data, etc.) stating that "the binary mail message is returned to the user ID means 12 having ID as ID (Ax)", is transmitted from a linking ID means 23 having ID(By) in the electronic mail system 2 to the user ID means 22 having user ID means having ID(Bx) at the destination of forwarding in the electronic mail system 2.

Detailed Description Text (32):
FIGS. 4(A) and 4(B) illustrate a system for carrying out the method for administrating electronic mail messages in linking electronic mail systems according to an embodiment of the present invention. In this embodiment, the binary data is held at the user ID means 12 which is the forwarding side by using the function for suppressing double forwarding, and this fact is notified to the user ID means 22 at the destination of forwarding in the electronic mail system which is the destination of forwarding.

Detailed Description Text (34):
The linking system 3 is widely constituted by an ID correspondence table 31, a mail transmission/reception processing unit 32, and a binary mail processing unit 33.

Detailed Description Text (35):
The ID correspondence table 31 is a table in which are registered a user ID which

is the forwarding side in the electronic mail system 1 and a user ID which is the destination of forwarding in the electronic mail system 2, which correspond to each other. In this embodiment, for instance, the user X has the user ID means 12 having ID(Ax) in the electronic mail system 1 and the user ID means 22 having ID as ID(Bx) in the electronic mail system 2, and the electronic mail arriving at the user ID means 12 having ID as ID(Ax) in the electronic mail system 1 is intentionally and collectively forwarded to the user ID means 22 having ID as ID(AX) in the electronic mail system 2. In this case, the user ID means 22 having ID as ID(Bx) is registered as a destination of forwarding being corresponded to the user ID means 12 having ID(Ax). The ID correspondence table 31 stores such correspondences in the form of a table in response to a request from the user who wants forwarding (linking) between electronic mail systems.

Detailed Description Text (36):
The mail transmission/reception processing unit 32 is constituted by a mail transmission/reception processing unit 321 for the electronic mail system 1 and a mail transmission/reception processing unit 322 for the electronic mail system 2. The mail transmission/reception processing unit 321 is constituted by a command issuing unit 3211 and a message receiving unit 3212. The command issuing unit 3211 has a function of sending a command for mail operation to the electronic mail system 1 through the linking ID means 13 having ID(Ay) or the linking ID means 14 having ID(Az), and the message receiving unit 3212 has a function of receiving a reply or a mail message from the electronic mail system 1.

Detailed Description Text (37):
The command issuing unit 3211 and the message receiving unit 3212 issue an electronic mail message (e.g., a reply to the binary data) to the electronic mail system 1 being controlled by a mail reply operation unit 333 that will be mentioned later. Moreover, the command issuing unit 3211 and the message receiving unit 3212 can access at a suitable timing (e.g., maintaining a predetermined time interval), to the electronic mail system 1 through the linking ID means 13 having ID as ID(Ay) to monitor whether there is a new electronic mail data or not.

Detailed Description Text (38):
The mail transmission/reception processing unit 322 is constituted by a command issuing unit 3221 and a message receiving unit 3222. The command issuing unit 3221 has a function of feeding a command for mail operation by accessing to the electronic mail system 2, through the linking means having ID as ID(By), and the message receiving unit 3222 has a function of receiving a reply from the electronic mail system 2.

Detailed Description Text (40):
When the electronic data received from the electronic mail system 1 is a text data, the mail reply operation unit 333 transmits the content thereof to the user ID means having ID(Bx) at the destination of forwarding from the linking ID means having ID(By) in the electronic mail system 2 through the command issuing unit 3221 of the main transmission/reception processing unit 322.

Detailed Description Text (41):
When the electronic data received from the electronic mail system 1 is a binary data, on the other hand, the mail reply operation unit 333 transmits the content thereof to the linking ID means having ID(Az) from the linking ID means having ID (Ay) in the electronic mail system 1 through the command issuing unit 3211 of the main transmission/reception processing unit 321. Prior to this, the linking ID means having ID(Az) has been designated to forward the electronic data to the user ID means having ID(Ax) which is the destination of forwarding. In the case of the binary data, furthermore, the notifying mail operation unit 332 is controlled to form a notifying message, and the content thereof is transmitted to the user ID means having ID(Bx) at the destination of forwarding from the linking ID means having ID(By) in the electronic mail system 2 through the command issuing unit 3221

of the mail transmission/reception unit 322.

Detailed Description Text (44):
The linking system 3 has a linking ID means having ID as ID(Ay) and a linking ID means having ID as ID(Az) in the electronic mail system 1 and, further, has a linking ID means having ID as ID(By) in the electronic mail system 2. Furthermore, the user ID means having ID as ID(Ax) in the electronic mail system 1 has been designated to forward the electronic mail to the linking ID means having ID(Ay) which is the destination of forwarding.

Detailed Description Text (45):
It is now presumed that a binary mail message has arrived at the user ID means having ID(Ax) of the user X from a user in the electronic mail system 1. The binary mail is forwarded from the user ID means having ID(Ax) to the linking ID means having ID(Ay).

Detailed Description Text (46):
The linking system 3 fetches the binary data that is forwarded to the linking ID means having ID(Ay), and the message receiving unit 3212 judges that it is a binary data. The judged result is notified to the mail reply operation unit 333 which then designates the linking ID means having ID(AX) through the command issuing unit 3211 to forward the binary data to the user ID means having ID(Ax) which is the destination of forwarding and, then, designates the linking means having ID(Ay) to forward the binary data to the linking ID means having ID(Az).

Detailed Description Text (50):
Upon receiving from the mail reply operation unit 333 a notice that the mail message forwarded from the electronic mail system 1 is a binary data, the notifying mail message reply operation unit 332 checks the user ID means of ID(Ax) which is the forwarding source based upon header information of the binary mail, makes reference to the ID correspondence table 31 to retrieve the user ID means of ID(BX) at the destination of forwarding in the electronic mail system 2 that corresponds to the user ID means of ID(Ax), forms a notification message stating that the binary data has arrived at the electronic mail system 1, and transmits the content of the notification message from the linking ID(By) in the linking mail system 2, via the command issuing unit 3221, to the user ID(Bx) at the destination of forwarding retrieved in the ID correspondence table 31.

Detailed Description Text (52):
The present invention can be put into practice in a variety of modifications. In the above-mentioned embodiment, the linking system 3 has transmitted the binary data that is received from the linking ID means of ID(Ay) to the linking ID means of ID(Az) in the electronic mail system 1. The invention, however, is in no way limited thereto only but may be one in which the binary data forwarded from the user ID means of ID(Ax) to the linking ID means of ID(Ay) is down-loaded by the linking system 3 and is held therein, and is then transmitted from the linking ID means of ID(Az) to the linking ID means of ID(Ay) instead of transmitting it from the linking ID means of ID(Ay) to the linking ID means of ID(Az). Prior thereto, furthermore, the linking ID means of ID(Ay) may be so designated as to forward the binary mail to the user ID means of ID(Ax) which is the destination of forwarding.

Detailed Description Text (53):
Moreover, the electronic mail system 1 may be provided with a function for suppressing the forwarding to the ID through which the binary data has already passed instead of the function for suppressing the double forwarding. In this case, upon receiving the notice that the electronic mail that is received is a binary data, the mail reply operation unit 333 of the linking system 3 transmits the binary data from the linking ID means of ID(Ay) or the linking ID means of ID(Az) to the user ID means of ID(Ax) via the command issuing unit 3211. In this case, the user ID means of ID(Ax) has been so designated as to forward the binary data that

is received to the linking ID means of ID(Ay). At this moment, however, the linking ID means of ID(Ay) is the ID through which the binary mail has already passed. Therefore, the user ID means of ID(Ax) suppresses the forwarding to the linking ID means of ID(Ay). As a result, the binary data is held at the user ID means of ID (Ax).

Detailed Description Text (54):
In linking an electronic data between the electronic mail systems handling data in different formats according to the present invention as described above, when it is requested to forward the electronic mail in a data format that cannot be handled by the electronic mail system at the destination of forwarding, the electronic mail is held at the user ID at the forwarding source by utilizing the function for suppressing double forwarding of the electronic mail system or the function for suppressing the forwarding to the ID through which the electronic mail has already passed. As required, furthermore, this fact is notified to the user ID at the destination of forwarding in the electronic mail system which is the destination of forwarding. Therefore, the user learns that the electronic mail message cannot be forwarded but has arrived at the electronic mail system without the need of regularly checking for electronic mail messages in the electronic mail system to which access is rarely made.

CLAIMS:

1. A method for administrating electronic messages in linking an electronic mail systems, comprising:

a linking system,

an electronic mail system which is a forwarding side having a double forwarding-suppressing function connected to said linking system,

and an electronic mail system which is the destination to which the mail message to be forwarded, and in which linking ID means controlled by the linking system are set in each of the electronic mail systems, and wherein an electronic mail message forwarded to the linking ID means from the user ID means of the electronic mail system of the forwarding side, is forwarded to a linking ID means of opposite electronic mail system of the destination to which the message to be forwarded, through the linking system, wherein at least two linking ID means are arranged at least in the electronic mail system of the forwarding side and when it is judged that the electronic mail message forwarded from electronic mail system of the forwarded side has a data format that cannot be handled by the electronic mail system of the destination side to which the message to be forwarded, the linking system of the forwarding side transmits the electronic mail message forwarded to a first linking ID means provided in the electronic mail system of the forwarding side to a second linking ID means provided in the same electronic mail system, and transmits again the electronic mail message from the second linking ID means to the user ID means of the same electronic mail system.

2. A method for administrating electronic mails in linking an electronic mail systems according to claim 1, wherein when the linking ID means in the electronic mail system which is the forwarding side has received an electronic mail message in a data format that cannot be handled by the electronic mail system which is the destination of forwarding, the linking system transmits to the user ID means of the destination of forwarding in the electronic mail system which is the destination of forwarding a notifying message to notify the user that the electronic mail system which is the destination of forwarding has received a notifying message saying that it receive an electronic mail message data format of which cannot be handled thereby.

3. A linking system for carrying out the method for administrating electronic mails

in linking an electronic mail systems according to claim 1, comprising:

a mail transmission/reception processing unit (32) having at least two linking ID means in an electronic mail system that has a function for suppressing double-forwarding and further having a function for determining whether an electronic mail message forwarded to the first linking ID means has a data format that can be handled by an electronic mail system of the destination to which the electronic mail message is forwarded; and

a mail processing unit (33) which, when said mail transmission/reception processing unit judges that the electronic mail message cannot be handled by the electronic mail system of the destination to which it is forwarded, designates the second ID means which is separated from the first linking ID means to forward the electronic mail message to the user ID means that has forwarded the electronic mail message, and so works that said electronic mail message is transmitted from said first linking ID means to said second linking ID means and that said electronic mail message is transmitted from said second linking ID means to said user ID means of the source of forwarding.

4. A linking system according to claim 3, wherein said mail message processing unit 33 designates said first linking ID means to forward the electronic mail message to the user ID means that is the source of forwarding the electronic mail message, instructs said second linking ID means to transmit said electronic mail message to said first linking ID means, and further causes said electronic mail message to be transmitted from said first linking ID means to the user ID means of the forwarding side, instead of designating the first linking ID means to forward the electronic mail message to the second linking ID means.

5. A linking system according to claim 4, further comprising an ID correspondence table in which is stored a user ID of the destination of forwarding that corresponds to a user ID means of the forwarding side wherein, when a mail transmission/reception processing unit judges that an electronic mail message cannot be handled by an electronic mail system of the destination of forwarding, said mail processing unit forms a notifying information for notifying the user that the electronic mail message that is forwarded, cannot be handled by the electronic mail system of the destination of forwarding, and transmits said notifying information from a linking ID means in the electronic mail system of the destination of forwarding to the user ID means of the destination of forwarding retrieved by said ID correspondence table.

6. A linking system according to claims 3, further comprising an ID correspondence table (31) in which is stored a user ID of the destination of forwarding that corresponds to a user ID means of the forwarding side wherein, when a mail transmission/reception processing unit judges that an electronic mail message cannot be handled by an electronic mail system of the destination of forwarding, said mail processing unit forms a notifying information for notifying the user that the electronic mail message that is forwarded, cannot be handled by the electronic mail system of the destination of forwarding, and transmits said notifying information from a linking ID means in the electronic mail system of the destination of forwarding to the user ID means of the destination of forwarding retrieved by said ID correspondence table.

7. A method for administrating electronic messages in linking an electronic mail systems, comprising:

a linking system,

an electronic mail system which is the forwarding side having a double forward-suppressing function connected to the linking system,

and an electronic mail system which is the destination to which the message to be forwarded, and in which linking ID means controlled by the linking system are set in each of the electronic mail systems, and wherein an electronic mail message forwarded to the linking ID means from the user ID means of the electronic mail system of the forwarding source, is forwarded to a linking ID means of opposite electronic mail system of the destination to which the message to be forwarded, through the linking system, wherein at least two linking ID means are arranged at least in the electronic mail system of the forwarding side and when it is judged that the electronic mail message forwarded from electronic mail system of the forwarded side has a data format that cannot be handled by the electronic mail system of the destination side to which the message to be forwarded, the linking system stores the electronic mail forwarded in the first linking ID means in the electronic mail system which is the forwarding side, transmits said electronic mail message to the second linking ID means in the electronic mail system which is the forwarding side such that the electronic mail message is transmitted from said second linking ID means to said first linking ID means, and then forwards said electronic mail message from said first linking ID means to the user ID means of the forwarding side.

8. A linking system for carrying out the method for administrating electronic mails in linking an electronic mail systems according to claim 7, comprising:

a mail transmission/reception processing unit (32) having a function for judging whether or not electronic mail message forwarded to a linking ID means in an electronic mail systems having a function for suppressing the forwarding to the ID means to which the electronic mail message has already been forwarded, can be handled by an electronic mail system of the destination to which the electronic mail message is forwarded; and

a mail processing unit (33) which, when said mail transmission/reception processing unit 32 judges that the electronic mail message cannot be handled by the electronic mail system of the destination to which it is forwarded, controls said linking ID means to transmit said electronic mail message to the user ID means which is the source of forwarding the electronic mail message.

9. A linking system according to claim 8, further comprising an ID correspondence table in which is stored a user ID of the destination of forwarding that corresponds to a user ID means of the forwarding side wherein, when a mail transmission/reception processing unit judges that an electronic mail message cannot be handled by an electronic mail system of the destination of forwarding, said mail processing unit forms a notifying information for notifying the user that the electronic mail message that is forwarded, cannot be handled by the electronic mail system of the destination of forwarding, and transmits said notifying information from a linking ID means in the electronic mail system of the destination of forwarding to the user ID means of the destination of forwarding retrieved by said ID correspondence table.

10. A method for administrating electronic mails in linking an electronic mail systems according to claim 7, wherein when the linking ID means in the electronic mail system which is the forwarding side has received an electronic mail message in a data format that cannot be handled by the electronic mail system which is the destination of forwarding, the linking system transmits to the user ID means of the destination of forwarding in the electronic mail system which is the destination of forwarding a notifying message to notify the user that the electronic mail system which is the destination of forwarding has received a notifying message saying that it receive an electronic mail message data format of which cannot be handled thereby.

11. A linking system according to claim 8, further comprising an ID correspondence table in which is stored a user ID of the destination of forwarding that

corresponds to a user ID means of the forwarding side wherein, when a mail transmission/reception processing unit judges that an electronic mail message cannot be handled by an electronic mail system of the destination of forwarding, said mail processing unit forms a notifying information for notifying the user that the electronic mail message that is forwarded, cannot be handled by the electronic mail system of the destination of forwarding, and transmits said notifying information from a linking ID means in the electronic mail system of the destination of forwarding to the user ID means of the destination of forwarding retrieved by said ID correspondence table.

12. An apparatus for linking electronic mail systems including the capability to forward a message, said system comprising:

an originating mail system forwarding to a destination mail system, the originating mail system and the destination mail system being coupled via a linking system, the originating mail system having a first linking ID unit, a second linking ID unit, a user ID unit, when it is determined that a data format of the message formed at the originating mail system is not compatible with a data format of the destination mail system, the linking system transmits the message transmitted to the first linking ID unit to the second linking ID unit, and the message from the second linking ID unit is again transmitted to the user ID unit within the originating mail system.

13. An method of forwarding a message from an originating mail system to a destination mail system via a linking system, the originating mail system including at least two linking ID units used for suppressing double forwarding, comprising the steps of:

(a) determining whether a data format of the message formed at the originating mail system is compatable with a data format of the destination mail system, and

(b) if the data formats as determined in step (a) are not compatable, then transmitting by the linking system the message transmitted to the first linking ID unit to the second linking ID, and then transmitting the message from the second linking ID unit to the user ID unit.

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